

**WHAT IS CLAIMED IS:**

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1. A composition, comprising:  
a curable unsaturated compound;  
a curing agent; and  
an adhesion promoter, wherein the composition has a peak exotherm of less than about 50°C (120°F).
  2. A composition according to claim 1, further comprising a non-curable diluent.
  3. A composition according to claim 1, wherein the curable unsaturated compound comprises at least one unsaturated group selected from the group consisting of methacrylate, acrylate, vinyl and combinations thereof.
  4. A composition according to claim 3, wherein the unsaturated group is methacrylate.
  5. A composition according to claim 1, wherein the curable unsaturated compound is an oligomer.
  6. A composition according to claim 5, wherein the oligomer is a dimethacrylate oligomer.
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7. A composition according to claim 6, wherein the dimethacrylate oligomer is selected from the group consisting of MLU-340, MLU-341 and MLU-342.
  8. A composition according to claim 5, wherein the oligomer has a molecular weight of greater than about 1050.
  9. A composition according to claim 5, wherein the oligomer has a molecular weight of between from 1000 to about 5000.

10. A composition according to claim 1, wherein the peak exotherm is from about 20°C to about 45°C.

11. A composition according to claim 1, wherein the peak exotherm is from about 35°C to about 40°C.

~~12. A composition according to claim 1, wherein the curable unsaturated compound has an unsaturation index greater than or equal to 500.~~

~~13. A composition according to claim 1, wherein the curable unsaturated compound has an unsaturation index of from about 600 to about 1500.~~

~~14. A composition according to claim 1, wherein the curable unsaturated compound has an unsaturation index of from about 600 to about 1200.~~

15. A composition according to claim 1, wherein the adhesion promoter is selected from the group consisting of poly(acrylic acid), poly(ethylene oxide), poly(vinyl pyrrolidone), poly(maleic anhydride-co-methyl vinyl ether), karaya gum, guar gum, acacia gum, carboxypolymethylene, chitosan, hydroxyethyl cellulose, sodium carboxymethylcellulose, hydroxypropyl cellulose, polycarbophil, poly(vinyl alcohol), hydroxypropylmethyl cellulose and compatible combinations thereof.

16. A composition according to claim 1, wherein the adhesion promoter is polycarbophil.

~~17. A composition according to claim 1, wherein the adhesion promoter has a molecular weight of greater than about 100,000.~~

18. A composition according to claim 1, wherein the curing agent is a photoinitiator.

19. A composition according to claim 1, further comprising a bioadhesion synergist.
20. A composition according to claim 19, wherein the bioadhesion synergist is a divalent metal or an alkali metal ion.
21. A composition according to claim 17, wherein the adhesion synergist is selected from the group consisting of zinc oxide and anhydrous dicalcium phosphate.
22. A composition according to claim 1, wherein after curing the composition is a flexible bioadhesive.
23. A composition according to claim 1, further comprising a curing agent synergist.
24. A composition according to claim 23, wherein the curing agent synergist is ethyl-4-dimethylaminobenzoate.
25. A composition according to claim 1, further comprising a silica thickener.
26. A composition according to claim 1, wherein the composition is substantially free of monomers.
27. A composition according to claim 1, wherein the composition is monomer-free.
28. A composition according to claim 2, wherein the non-curable diluent has a viscosity of from about 1 centipoise to about 2000 centipoise.

29. A curable composition according to claim 1, further comprising a light-attenuating pigment.

30. A curable composition according to claim 29, wherein the light-attenuating pigment is selected from the group consisting of titanium dioxide and zinc oxide.

31. A composition according to claim 29, wherein the light-attenuating pigment is present from about 0.0001 percent to about 10 percent by weight of the composition.

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Sub A3 32. A two part composition, comprising:  
a first part comprising  
a curable unsaturated compound, an adhesion promoter and a curing agent, and  
a second part comprising  
a curable unsaturated compound, and a curing agent synergist of the curing agent of the first part, wherein upon mixing of the first part and the second part curing takes place with a peak exotherm of less than about 50°C (120°F).

33. A composition according to claim 32, wherein the curing agent is a benzoyl peroxide and the curing agent synergist is N,N-dimethyl-p-toluidine.

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Sub B3 34. A method for forming a flexible bioadhesive on a tissue, comprising:  
contacting the tissue with a composition comprising a curable unsaturated compound, a curing agent and an adhesion promoter, wherein the composition has a peak exotherm of less than about 50°C (120°F), and  
curing the composition to form the flexible bioadhesive on the tissue.

35. A method according to claim 34, wherein the tissue is selected from the group consisting of skin, mucosa, internal organs, bone, tendon, cartilage, enamel, dentin, and fingernails.

36. A flexible bioadhesive on a tissue surface prepared by the method of claim 34.

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37. A composition, comprising:  
a curable unsaturated compound, and  
a curing agent, wherein the composition has a peak exotherm of less than about  
50°C (120°F).

38. A composition according to claim 37, further comprising a non-curable diluent.

39. A composition according to claim 37, wherein the curable unsaturated compound  
comprises at least one unsaturated group selected from the group consisting of  
methacrylate, acrylate, vinyl and combinations thereof.

40. A composition according to claim 39, wherein the unsaturated group is  
methacrylate.

41. A composition according to claim 37, wherein the curable unsaturated  
compound is an oligomer.

42. A composition according to claim 41, wherein the oligomer is a dimethacrylate  
oligomer.

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43. A composition according to claim 42, wherein the dimethacrylate oligomer is  
selected from the group consisting of MLU-340, MLU-341 and MLU-342.

44. A composition according to claim 41, wherein the oligomer has a molecular  
weight of greater than about 1050.

45. A composition according to claim 41, wherein the oligomer has a molecular  
weight of between from 1000 to about 5000.

46. A composition according to claim 37, wherein the peak exotherm is from about 20°C to about 45°C.

47. A composition according to claim 37, wherein the peak exotherm is from about 35°C to about 40°C.

48. A composition according to claim 37, wherein the curable unsaturated compound has an unsaturation index greater than or equal to 500.

49. A composition according to claim 37, wherein the curable unsaturated compound has an unsaturation index of from about 600 to about 1500.

50. A composition according to claim 37, wherein the curable unsaturated compound has an unsaturation index of from about 600 to about 1200.

51. A composition according to claim 37, wherein the composition is substantially free of monomers.

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AS 52. A composition comprising a methacrylated polyetherurethane oligomer (MLU-340), capric/caprylic triglyceride, polycarbophil, camphorquinone, and ethyl-4-dimethylaminobenzoate.

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53. A composition according to claim 52, further comprising fumed silica.

54. A composition according to claim 52, further comprising zinc oxide.

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AG 55. A composition according to claim 52, wherein the composition comprises methacrylated polyetherurethane oligomer (MLU-340) in an amount from about 25 percent to about 98 percent by weight based on the total weight of the composition, capric/caprylic triglyceride in an amount from about 2 percent to about 50 percent by weight based on the total weight of the composition, polycarbophil in an amount from

about 10 percent to about 50 percent by weight based on the total weight of the composition, camphorquinone in an amount from about 0.05 percent to about 0.30 percent by weight based on the total weight of the composition, and ethyl-4-dimethylaminobenzoate in an amount from about 0.1 percent to about 1.0 percent by weight based on the total weight of the composition.

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